

MIL-C-17/160B
18 July 1985
~~SUPERSEDING~~
MIL-C-17/160A
4 June 1984

MILITARY SPECIFICATION SHEET

CABLE, RADIO FREQUENCY, FLEXIBLE, COAXIAL,
50 OHMS, M17/160-00001

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The complete requirements for acquiring the cable described herein shall consist of this specification and the latest issue of MIL-C-17.

NOTE: THIS CABLE USES PVC MATERIAL AND IS NOT TO BE USED IN AEROSPACE APPLICATIONS.

NOTE: THE AIR FORCE HAS RESTRICTED THE USE OF PVC IN AEROSPACE AND GROUND SUPPORT APPLICATIONS. CABLES WITH PVC JACKETING SHALL BE USED FOR RETROFIT PURPOSES ONLY UNTIL AN ALTERNATE JACKET IS APPROVED.

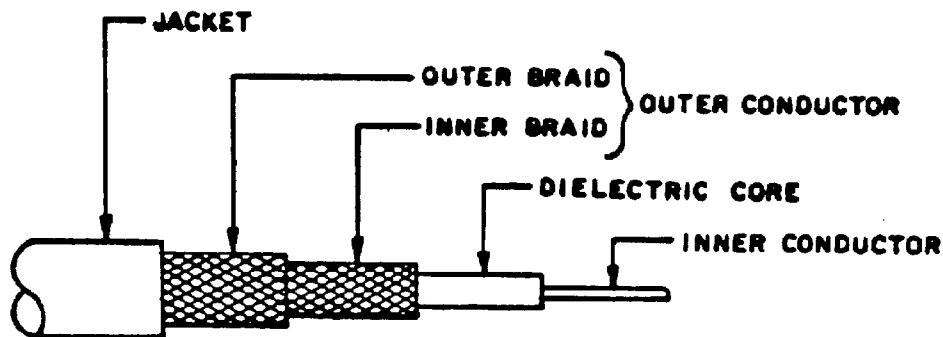


FIGURE 1. Configuration.

(B) denotes change.

FSC 6145

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

TABLE I. Description.

Component	Construction details
Inner conductor	Solid bare copper wire. Overall diameter: .195 inch \pm .002.
Dielectric core	Type A-1: Solid polyethylene. Diameter: .680 inch \pm .010.
Outer conductor:	Double braid of AWG No. 34, silver-coated copper wire. Diameter: .760 inch, maximum.
Inner braid	Coverage : 93.5% nominal Carriers : 48 Ends : 10 Picks/inch: 5.2 \pm 10%
Outer braid	Coverage : 90.4%, nominal Carriers : 48 Ends : 10 Picks/inch: 4.1 \pm 10%
Jacket	Type IIa: PVC Diameter: .895 inch \pm .015.

CAUTION IS DIRECTED TO THE APPLICATION OF THIS CABLE ABOVE 400 MHZ. ATTENUATION IS TESTED ONLY AT 400 MHZ. SRL AND POWER HANDLING CAPABILITIES ARE NOT STIPULATED HEREIN.

ENGINEERING INFORMATION:

Continuous working voltage: 8,000 V rms, maximum.

Velocity of propagation: 65.9 percent, nominal.

Operating temperature range: -40°C to -85°C.

Inner conductor properties:

DC resistance (maximum at 20°C): 0.0278 ohm per 100 feet.

Elongation: 30 percent, minimum.

Tensile strength: Not applicable.

Engineering note: This cable is useful in general purpose, medium low temperature applications. (See connector series "N" per MIL-C-39012, "HN" per MIL-C-3643, and "LC" per MIL-C-3650.)

REQUIREMENTS:

Dimensions, configuration, and description: See figure 1 and table I.

Environmental and mechanical:

Visual and mechanical:

Out-of-roundness: Not applicable.

Eccentricity: 5 percent, maximum.

Adhesion of conductors:

Inner conductor to core: 60 pounds, minimum; 600 pounds, maximum.

Aging stability: $+98^{\circ}\text{C} \pm 2^{\circ}\text{C}$.

Stress crack resistance: Not applicable.

Outer conductor integrity: Not applicable.

⑧ Cold bend: $-40^{\circ}\text{C} \pm 2^{\circ}\text{C}$.

Dimensional stability: $+85^{\circ}\text{C} \pm 2^{\circ}\text{C}$.

Inner conductor from core: 0.200 inch, maximum.

Inner conductor from jacket: 0.400 inch, maximum.

Contamination: Applicable.

Bendability: Not applicable.

Flammability: Not applicable.

⑧ Weight: 0.520 pound per foot, maximum.

Electrical:

Continuity: Applicable.

③ Spark test: 8,000 V rms, +10%, -0%.

⑧ Voltage withstanding: 22,000 V rms, +10%, -0%.

Insulation resistance: Not applicable.

Corona extinction voltage: 11,000 V rms, minimum.

Characteristic impedance: 50 ohms ± 2 .

Attenuation: 2.7 dB/100 ft maximum at 400 MHz.

Structural return loss: Not applicable.

Capacitance: 32.2 pF per foot, maximum.

Capacitance stability: Not applicable.

Capacitance unbalance: Not applicable.

Transmission unbalance: Not applicable.

Mechanically induced noise voltage: Not applicable.

Time delay: Not applicable.

Part number: See table II.

Supersession data: See table II.

TABLE II. Cross-reference of part number.

Part number	Superseded part number or type designation
M17/160-00001	RG-177/U per MIL-C-17D

Custodians:

Army - CR
Navy - EC
Air Force - 85

Preparing activity:

Army - CR

(Project 6145-0911-36)

Review activities:

Army - MI
Navy - SH, TD
Air Force - 11, 17, 99
DLA - ES, IS

User activities:

Army - AR, AT, ME
Navy - AS, MC, OS
Air Force - 19

Agent:

DLA - ES